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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,141	09/17/2003	Hiroshi Oota	58164US004	3487
32692	7590	03/29/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			KRUEER, KEVIN R	
PO BOX 33427			ART UNIT	PAPER NUMBER
ST. PAUL, MN 55133-3427			1773	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/664,141

Applicant(s)

OOTA ET AL.

Examiner

Kevin R Kruer

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 03/18/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The information disclosure statement filed 3/18/2004 has been fully considered. An initialed copy of said PTO-1449 is enclosed herein.

***Drawings***

3. The drawings filed 9/17/2003 are accepted.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 4, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Panush (US 4,539,258).

Panush teaches a metallic substrate (col 2, lines 1+) having applied thereto a base coat and a transparent interference coat (col 1, lines 36+). The base coat comprises a polymer and a pigment (col 2, lines 17+) wherein the pigment primarily comprises white pigment (col 4, lines 65+). The base coat has a N-4 to N-8 value on the Munsell color chart (claim 1), which is herein understood to equate to the claimed luminosity value. Specifically, the luminosity value is a measure of the lightness of a

color wherein  $L^*=0$  is black,  $L^*=100$  is white and  $L^*=50$  is gray (see US 5,766,738; col 5, lines 1+). Similarly, the Munsell color chart is a measure of the degree of darkness of a color (col 4, lines 39+). The transparent interference coat comprises an opalescent inorganic pigment (herein understood to read on the claimed metalescent inorganic pigment) and a polymer (col 6, lines 38+).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Panush (US 4,539,258).

Panush teaches a metallic substrate (col 2, lines 1+) having applied thereto a base coat and a transparent interference coat (col 1, lines 36+). The base coat comprises a polymer and a pigment (col 2, lines 17+) wherein the pigment primarily comprises white pigment (col 4, lines 65+). The base coat has a N-4 to N-8 value on the Munsell color chart (claim 1). The transparent interference coat comprises an opalescent inorganic pigment (herein understood to read on the claimed metalescent inorganic pigment) and a polymer (col 6, lines 38+).

Panush does not explicitly teach the claimed luminosity. However, Panush does teach that the base coat's degree of darkness should be varied in order to obtain the desired aesthetic affect. Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to vary the luminosity of the base coat taught in Panush. The motivation for doing so would have been to obtain the desired aesthetic appearance.

Panush also does not explicitly teach the claimed light transmittance. However, Panush teaches that the light transmittance is a result effective variable that varies with the amount of opalescent pigment added to the transparent interference coat (col 7, lines 40+). The courts have held that it is not inventive to discover the optimum or workable range by routine experimentation when the general conditions of the claimed invention are disclosed in the prior art (See MPEP 2141.05). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the amount of opalescent pigment added to the transparent interference coat taught in Panush. The motivation for doing so would have been to obtain the desired transparency.

8. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Panush (US 4,539,258), as applied to claims 1-4 and 8 above, and further in view of Kuntz et al (US 2002/0022093A1).

Panush is relied upon as above, but does not teach that the laminate should have the claimed retention rate of reflection luminance. However, Kuntz teaches that the change in reflection based upon viewing angle is a result of the opalescent pigment (0002). The courts have held that it is not inventive to discover the optimum or workable range by routine experimentation when the general conditions of the claimed invention are disclosed in the prior art (See MPEP 2141.05). Thus, it would have been obvious to

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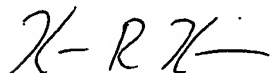
one of ordinary skill in the art at the time the invention was made to vary the amount of opalescent pigment in the transparent interference coat taught in Panush. The motivation for doing so would have been to obtain the desired retention rate of reflection luminance.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin R. Kruer  
Patent Examiner-Art Unit 1773